Jan. 16, 1923.

1,442,737

B. SCHACHT.
SIDEWALK DOOR.
FILED NOV. 27, 1920.

Fig. 1.

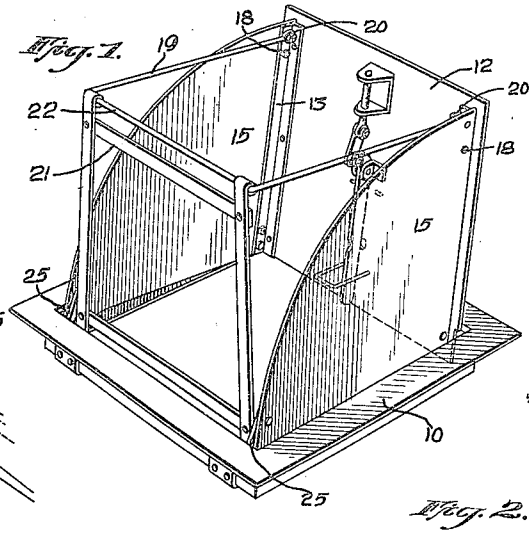


Fig. 4.

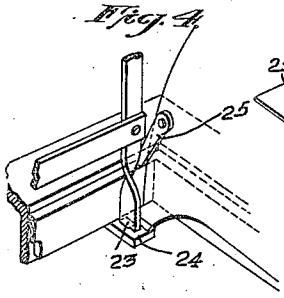


Fig. 5.

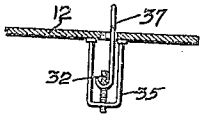


Fig. 2.

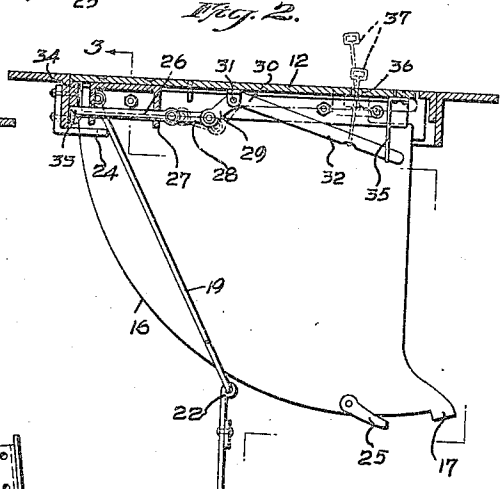


Fig. 3.

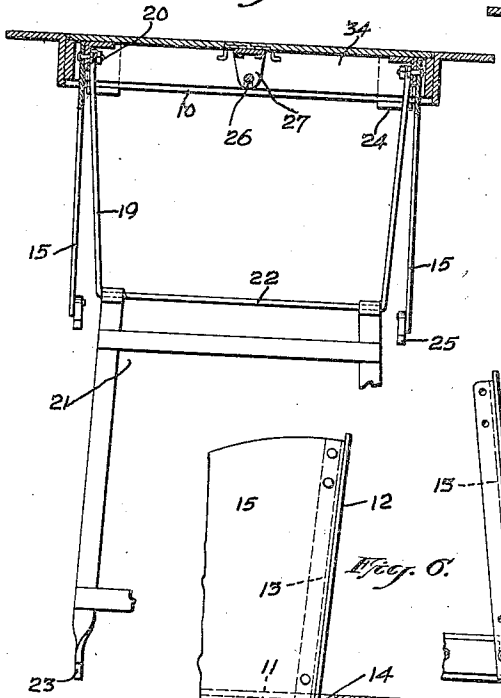
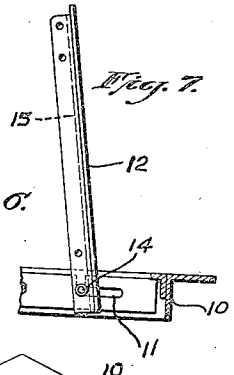


Fig. 6.

Fig. 7.



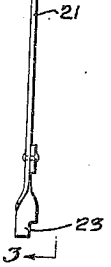
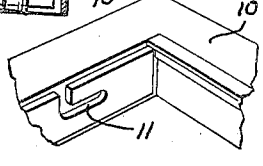


Fig. 8.



WITNESSES

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UNITED STATES PATENT OFFICE.

BARNET SCHACHT, OF NEW YORK, N. Y.

SIDEWALK DOOR.

Application filed November 27, 1920. Serial No. 426,746.

To all whom it may concern:

Be it known that I, BARNET SCHACHT, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Sidewalk Door, of which the following is a full, clear, and exact description.

This invention relates generally to the class of doors or closures and is particularly designed as a side walk door for gaining access to a cellar or sub-basement.

The invention contemplates and seeks for one of its principal objects to provide a door equipped with a guard which will effectively and safely protect the public when the door is in open condition.

Another object of the invention is to provide a door of the character described which includes an improved means for detachably associating the door with its frame to permit of its removal therefrom for the purpose of repairs or the like.

A still further object of the invention is to provide a gravity operated latch for locking the door inclosed position in combination with means for permitting of the operation of the latch from the exterior.

A further object of the invention is to provide in combination with a door of the character described, having the usual guard flanges, a supplemental guard member for the open side of the frame which functions as a means for retaining the door in its open position.

With the above recited and other objects in view, some of which will appear hereafter, reference is had to the following specification, the appended claims and the accompanying drawings, in which:

Figure 1 is a perspective view of the door and frame, illustrating the same in open position with the guard rail arranged to protect the open side of the frame and for retaining the door in its opened position.

Figure 2 is a longitudinal sectional view therethrough illustrating the door in its closed position.

Figure 3 is a vertical transverse sectional view therethrough taken approximately on the line 3—3 of Figure 2.

Figure 4 is a fragmentary perspective view of one of the front corners of the frame illustrating the door in opened position.

Figure 5 is a fragmentary sectional view illustrating the manner in which the latch may be actuated from the exterior.

Figure 6 is a fragmentary longitudinal sectional view of the door in its open position, illustrating the manner in which the door and frame are associated.

Figure 7 is a similar view illustrating the manner of removing or assembling the door and frame.

Figure 8 is a fragmentary perspective view of the rear corner of the frame.

Referring to the drawings by characters of reference, 10 designates the door frame which may be of any suitable construction, the same being here illustrated as made from angle iron. The opposite inner side rails of the frame 10 are provided with bayonet slot recesses 11 which open toward the top of the frame. The door 12 is provided with spaced longitudinal depending ribs 13 adjacent the opposite side edges thereof and said ribs are provided with outwardly disposed trunnions 14 which are designed to be received by the bayonet slot recesses 11 for detachably associating the rear edge of the door with the frame to permit of swinging movement of the free forward edge thereof. The ribs 13 are also designed to support the segmental guard flanges 15, the outer arcuate edges 16 of which are concentric with the trunnions 14 whereby when the flanges 15 are applied said arcuate edges 16 will co-act with the front rail of the frame to retain the trunnions in the closed end of the bayonet slot recess 11. The lower extremities of the guard flanges 15 are provided with radially projecting lugs 17 which co-act with the under side of the frame when the door is swung to an open position to limit the swinging movement thereof. It will thus be seen that the door is removably associated with the frame and is retained in associated relation through the engagement of the arcuate edge 16 of the guard flanges with the door frame 10. To remove the door from the frame, the bolts 18 which secure the guard flanges 15 to the ribs 13 are removed and the rear edge of the door is advanced toward the front rail of the frame to permit the trunnions to be removed from the open ends of the bayonet slot recesses 11. A collapsible guard rail affording protection for the front of the door when the same is in open position is

provided and the same comprises a bale 19 the free extremities of which are pivoted as at 20 to the ribs 13. A frame 21 is swingingly supported by the bight 22 of the bale and the free extremities of the frame are provided with reduced fingers 23 which are adapted to be received by the slotted keepers 24 provided on the frame 10. By this arrangement when the fingers 23 are engaged in the keepers, the bale is supported in a horizontal position to retain the door in opened condition, the frame 21 serving to guard and protect the open side of the door. Should it be desirable to lower and swing the protective railing to an out-of-the-way position and at the same time retain the door in open condition, provision is made therefor in the form of locking pawls 25 which are pivoted to the inner faces of the guard flanges 15, said pawls being arranged adjacent the lower extremities of the guard flanges for engagement with the frame, as clearly illustrated in Figure 4 of the drawings.

As illustrated the gravity latch for locking the door in closed position comprises a longitudinally slidable bolt 26 mounted in the guide 27 on the under side of the door 12. The inner end of the latch is connected by a link 28 to the short arm 29 of the bell crank lever 30 pivoted as at 31. The long arm 32 thereof constitutes a weight for normally projecting the nose 33 of the latch forwardly into engagement with the keeper strip 34 carried by the front rail of the frame 10. A bale 35 embraces the free extremity of the long arm 32 and constitutes a stop for limiting the forward projection of the latch. An opening 36 is provided in the door in alignment with the long arm of the latch and said opening is designed to receive a suitable key 37 insertible therethrough for lifting the weighted arm 32 to disengage the nose 33 of the latch, when it is desired to unlock the door from the exterior.

From the construction set forth, it is obvious that a side walk door is provided which safeguards the public, which is comparatively simple in construction and which is capable of assembly or disassociation for the purpose of repair, with minimum expenditure of labor.

While there has been illustrated and described a single and preferred embodiment of the invention, it is to be understood that variations and modifications which fall within the scope of the appended claims may be resorted to when found expedient.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. The combination with a door and frame, of means for removably mounting the door therein comprising trunnions carried by the rear end of the door, bayonet slotted portions in the opposite side rails of the frame adapted to receive the trunnions, and means constituting guard members, carried by the door and adapted to co-act with the frame for retaining the trunnions in the slotted portions of the frame.

2. In combination, a door and frame, said frame having bayonet slotted recesses in its opposite side rails, said door having trunnions adapted to be received by said slots to swingingly associate the door with the frame, and guard flanges detachably associated with the door and adapted to co-act with the end rail of the frame to retain the trunnions in the bayonet slotted recesses.

3. In a side walk door structure, a frame, a door detachably associated therewith for swinging movement, guard flanges carried by the door and adapted to co-act with the frame for retaining the door in associated relation to the frame, gravity latching means carried by the door, a keeper on the frame adapted to receive the latch means to lock the door in closed position, and a collapsible guard railing carried by the door and adapted to be arranged in a position to close the open side of the frame when the door is in opened position, said guard railing constituting means for retaining the door in open position.

BARNET SCHACHT.